

## NOTES, NEWS & COMMENTS

### Some Educational Implications of the World Conservation Strategy

The IUCN-UNEP-WWF World Conservation Strategy attempts to reconcile the human need to develop the Earth in order to live, with the human need to conserve the Earth in order to survive. It argues that conservation and development can be mutually reinforcing, and sets the scene for conservation-minded people and development-minded people to unite, finally, in a common effort towards survival.

It claims that, for keeping the Earth habitable, the first priority is to see that the essential ecological processes and life-support systems of the Earth continue in good functioning order, the second priority is the preservation of genetic diversity, while the third priority is the sustainable utilization of species and ecosystems.

There are, of course, other reasons for preserving species and ecosystems. Simple human compassion is one, and the extraordinary beauty of natural forms is another. Perhaps most importantly, we are morally obliged to our descendants not to leave the Earth less alive, less interesting, and less wondrous, as a result of our having been here.

Because of the devastating impact of the human species on the environment, it is said that insufficient emphasis is given in the Strategy to the overwhelming impact of the problem of human population and its relentless growth. My own list of major global concerns: population, pollution, poverty, and proliferation of nuclear weapons—the 4 Ps—has always put population first. There is no question that Man has had the most devastating impact on The Biosphere of any species, and that this will continue to get worse as long as population growth continues to outstrip all indexes of economic growth and development.

The behavioural changes proposed in the Strategy are so sweeping that they amount to a new environmental ethic. It says:

‘Ultimately the behaviour of entire societies towards the biosphere must be transformed if the achievement of conservation objectives is to be assured. A new ethic, embracing plants and animals as well as people, is required for human societies to live in harmony with the natural world on which they depend for survival and well-being. The long-term task of environmental education is to foster or reinforce attitudes and behaviour compatible with this new ethic.’

#### *Towards a World Environmental Education Strategy?*

Several strategies are needed to solve the global crisis: a strategy for peace and a strategy for population control, for example, as well as a strategy for conservation. I think the time has also come to consider the need for a world environmental education strategy.

As the World Conservation Strategy poses (but does not solve) its educational problems, and leaves it to the reader to invent solutions, I have approached the problem from two points of view: personal and institutional. I shall first give personal reflections about some aspects of environmental education which merit special attention, and then I shall consider what actions the Commission on Education of IUCN might be able to take.

Individual personal action should not be discounted, as individuals can act in at least three ways which may have positive results. Thus they can: make decisions, pass judgements, and exercise an influence by example. Consequently, before considering a global strategy for

environmental education, I would like to make two recommendations involving individual action.

First, recognizing that the greatest possible environmental devastation, including the extinction of many species, would occur in or as a result of a nuclear holocaust, it behoves all environmentalists and lovers of life and the Earth to participate in activities which would minimize the probability that a holocaust will occur. As this is still subject to different interpretations, no clear-cut recommendation such as voting for a nuclear freeze is given here. But certainly men and women of good will everywhere should act in such a way as to reduce the risk that a nuclear exchange takes place. Proliferation of nuclear weapons is, in my estimation, ‘a holocaust looking for a place to happen’.

Second, if you are not already doing so, I suggest that you start to live your daily life following an environmental ethic as currently conceived by you. This would include taking steps to conserve natural resources and to minimize the extinction of plant and animal species. Band together with other like-minded people to reinforce one another and to learn more. Hold seminars, reflection groups, and study-sessions based upon the World Conservation Strategy, in order to develop your own personal educational strategy. Try to expand the boundary conditions of your environmental thinking so that they broaden daily to the point where you are, indeed, thinking about the global implications of what you once conceived as merely local environmental problems. By sharing your thoughts, the basis of a world environmental education strategy may be created.

Next, let me express the results of my reflections concerning compassion as a basis for an environmental ethic. To improve the quality of life, education must generate curiosity, creativity, competence, and compassion—the 4 Cs. As time has gone on, the importance of compassion has, in my judgement, increased. It is needed more than ever to effect change at this turning point in history. When I first wrote about the role of compassion in education I had only fellow-feeling and social responsibility in mind. I now believe that a feeling of compassion, and even affection, must be extended to all living things, plants and animals, and to the entire Biosphere which teems with life, if we are to animate an environmental ethic. The fifth C—conservation—can be a direct consequence of compassion.

#### *The Role of Science in Environmental Education*

I would like to make a special plea for the role of science in environmental education. Although the generation of humane attitudes towards living things is of the utmost importance, these attitudes must rest on accurate knowledge—the firm scientific foundation of ecology. The subject of ecology, upon which many of the arguments of the Strategy are based, is largely a biological science which, in turn, leans heavily on chemistry and physics. The concepts of ecosystems, species, and genetic diversity, for example, require a thorough understanding of genetics and several other aspects of biology. The concept of The Biosphere, which links the laws of thermodynamics with the requirements of living things, also illustrates the interdisciplinary nature of the scientific base which underlies environmental studies.

As both ecology and environmental education are widely interdisciplinary, it is only natural that the environment has already been chosen as the integrating concept in many integrated science courses. This was recognized a decade or so ago in the science education

sector of UNESCO, even before a formal environmental education programme was started there. Throughout the decade of the 70s, many integrated science courses were generated around the world in which the environment was used as the integrating factor.

Let us consider why Man-environment impact is a key educational issue of the 80s. Man prides himself in being the most intelligent animal on the Earth; yet he is the only one that has caused such vast devastation of The Biosphere. In less than a thousand years, which is the blink of an eye in geologic time, he has consumed a large proportion of the fossil fuels which took Nature millions of years to produce. The air we breathe is full of noxious fumes and radioactive particles of his making.

Man has placed millions of tons of concrete and cement on roads and cities where there were once forests and wildlife. At least 3,000 square kilometres of prime farmland is disappearing each year under buildings and roads in developing countries alone. Thousands of millions of tons of soil are being lost each year as a result of deforestation and poor land-management. Hundreds of millions of rural people in developing countries are forced to strip their land of vegetation in order to find wood for cooking and heat. Each year 4,000 million tons of dung and crop residues are burned for fuel which could otherwise regenerate soils. And now Man has the capability of generating a nuclear holocaust which could devastate The Biosphere and make life on Earth extinct.

A new sense of humility must be born in mankind. We should realize that if human beings could be removed from the Earth, it could probably heal itself and become once again a planet where the oceans were clean, the air pure, and the forests green and full of wildlife. *Remember that the Earth, its plants, and its animals, can survive without us, but we cannot survive without them!*

There may be those who would believe that such a world environmental education strategy would be too grandiose a scheme. But what, short of that, is going to reverse the trends that are driving us to damage the planet further and even further? I believe that Man is intelligent enough to generate an environmental ethic, through education, which can point the way to achievement of the goal of the World Conservation Strategy, namely, sustainable development for Mankind.

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#### **Mrs Indira Gandhi becomes Honorary Chairman of the IUCN Commission on Education**

The International Union for Conservation of Nature and Natural Resources (IUCN) is pleased to announce that Mrs Indira Gandhi, Prime Minister of India, has accepted to become honorary chairman of its Commission on Education. This was conveyed by personal letter to Dr Albert V. Baez, the Chairman of the IUCN Commission on Education.

The Commission on Education is one of IUCN's oldest, having been established in 1949, a year after the founding of the Union, and comprises an international,

voluntary group dedicated to enhancing the quality of life through educational programmes that promote conservation and sustainable development throughout the world. Its broad aim is to help the general public to understand the need to protect the environment and use natural resources wisely, and to motivate participation in activities which will attain this goal to the benefit of present and future generations.

The Commission on Education's activities are directed towards policy-makers and planners, educators, young people, and the public in general. Commission members currently total 293, drawn from 89 countries. They are active in all aspects of environmental education, and include policy-makers, scientists, educators, mass communicators, museum directors, youth leaders, and others.

#### **Virginia Environmental Endowment — A Cooperative Approach**

Through a unique decision in 1977 by a United States District Court, a penalty for environmental pollution was turned into a constructive, ongoing programme for environmental improvement. This precedent case, which occurred in the Commonwealth of Virginia, USA, has resulted in a most innovative, productive programme directed by the Virginia Environmental Endowment.

In 1977, Allied Chemical Corporation was fined \$13.2 millions for polluting the James River in Virginia with Kepone, a highly toxic and persistent insecticide. In an agreement with the federal court, Allied paid a voluntary contribution of \$8 millions to create the Virginia Environmental Endowment. In just over five years, the Endowment has awarded \$2.3 millions in grants and loans for over 80 projects to improve the environment of Virginia.

#### *Four Main Priorities*

To attract proposals which address some of the State's most critical environmental problems, the Endowment focuses its grant-making on four priorities: (1) the effects of toxic substances on human health and the environment, (2) environmental law, (3) community improvement, and (4) environmental mediation.

Two guiding principles have helped the Endowment to carve an effective role as a catalyst for State and local environmental activity. First, it recognizes that environmental concerns are global in scope but local in their effect on people's lives. Many of the Endowment's grant programmes have been designed to help people to translate national policies into local action.

Another principle which the Endowment follows is that people can accomplish more by working together than they can when working separately. New coalitions of business, government, citizens, and conservationists, are finding practical, long-term solutions to problems of keeping communities safe and liveable.

The following results of several grant awards in the Endowment's four priority areas illustrate the success of this direct, cooperative approach:

The discovery of the release of Kepone into Virginia's primary waterway was precipitated by the diagnosis of severe illness in chemical workers who were exposed to large quantities of Kepone in their workplace. With substantial support from the Endowment, research workers